PCT/GB03/005225

INVESTOR IN PEOPLE

The Patent Office
Concept House
Cardiff Road
Newport
South Wales
NP10 8QQ

PRIORITY DOCUMENT

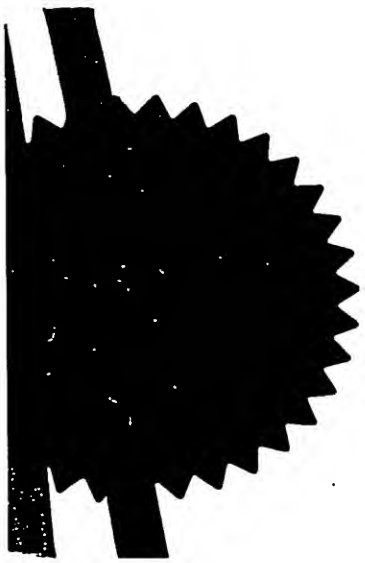
SUBMITTED OR TRANSMITTED IN COMPLIANCE WITH RULE 17.1(a) OR (b)

I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

In accordance with the Patents (Companies Re-registration) Rules 1982, if a company named in this certificate and any accompanying documents has re-registered under the Companies Act 1980 with the same name as that with which it was registered immediately before re-registration save for the substitution as, or inclusion as, the last part of the name of the words "public limited company" or their equivalents in Welsh, references to the name of the company in this certificate and any accompanying documents shall be treated as references to the name with which it is so re-registered.

In accordance with the rules, the words "public limited company" may be replaced by p.l.c., plc, P.L.C. or PLC.

Re-registration under the Companies Act does not constitute a new legal entity but merely subjects the company to certain additional company law rules.



Signed 

Dated 13 February 2004

Patents Form 1/77

Patents Act 1977
(Rule 16)

The Patent Office

06DEC02 E769011-1 C92282
P01/7700 0.00-0228447.9

1/77

THE PATENT OFFICE
J
- 6 DEC 2002
NEWPORT

Request for grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

The Patent Office

Cardiff Road
Newport
South Wales
NP10 8QQ

1. Your reference

SEEWHY SOFTWARE 1

2. Patent application number
(The Patent Office will fill in this part)

0228447.9

- 6 DEC 2002

3. Full name, address and postcode of the or of each applicant *(underline all surnames)*

CHARLES MARTIN NICHOLLS
40 ALMA ROAD
WINDSOR
BERKSHIRE SL4 3HJ

Patents ADP number *(if you know it)*

If the applicant is a corporate body, give the country/state of its incorporation

4. Title of the invention

SYSTEM FOR DETECTING AND INTERPRETING TRANSACTIONS EVENTS OR CHANGES IN COMPUTER SYSTEMS

5. Name of your agent *(if you have one)*

"Address for service" in the United Kingdom to which all correspondence should be sent *(including the postcode)*

/

Patents ADP number *(if you know it)*

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and *(if you know it)* the or each application number

Country	Priority application number *(if you know it)*	Date of filing *(day / month / year)*
/		

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application	Date of filing *(day / month / year)*
/	

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? *(Answer 'Yes' if:*

a) any applicant named in part 3 is not an inventor, or
b) there is an inventor who is not named as an applicant, or
c) any named applicant is a corporate body.
See note (d))

No

Patents Form 1/77

9. Enter the number of sheets for any of the following items you are filing with this form. Do not count copies of the same document

Continuation sheets of this form	NIL
Description	THIRTEEN
Claim(s)	THREE
Abstract	ONE
Drawing(s)	FOUR + 4 + 4 + 4 + 4

10. If you are also filing any of the following, state how many against each item.

Priority documents	NONE
Translations of priority documents	
Statement of inventorship and right to grant of a patent *(Patents Form 7/77)*	
Request for preliminary examination and search *(Patents Form 9/77)*	
Request for substantive examination *(Patents Form 10/77)*	
Any other documents *(please specify)*	

11. I/We request the grant of a patent on the basis of this application.

Signature [signature] Date 4th December 2002

12. Name and daytime telephone number of person to contact in the United Kingdom CHARLES NICHOLLS 01753 - 869240

Warning

After an application for a patent has been filed, the Comptroller of the Patent Office will consider whether publication or communication of the invention should be prohibited or restricted under Section 22 of the Patents Act 1977. You will be informed if it is necessary to prohibit or restrict your invention in this way. Furthermore, if you live in the United Kingdom, Section 23 of the Patents Act 1977 stops you from applying for a patent abroad without first getting written permission from the Patent Office unless an application has been filed at least 6 weeks beforehand in the United Kingdom for a patent for the same invention and either no direction prohibiting publication or communication has been given, or any such direction has been revoked.

Notes

a) *If you need help to fill in this form or you have any questions, please contact the Patent Office on 08459 500505.*

b) *Write your answers in capital letters using black ink or you may type them.*

c) *If there is not enough space for all the relevant details on any part of this form, please continue on a separate sheet of paper and write "see continuation sheet" in the relevant part(s). Any continuation sheet should be attached to this form.*

d) *If you have answered 'Yes' Patents Form 7/77 will need to be filed.*

e) *Once you have filled in the form you must remember to sign and date it.*

f) *For details of the fee and ways to pay please contact the Patent Office.*

PATENT APPLICATION

SYSTEM FOR DETECTING AND INTERPRETING TRANSACTIONS, EVENTS OR CHANGES IN DATA IN COMPUTER SYSTEMS

Inventor:

Charles Nicholls
40 Alma Road
Windsor
Berkshire, SL4 3HJ

Assignee:

SeeWhy Software
40 Alma Road
Windsor
Berkshire, SL4 3HJ

BACKGROUND OF THE INVENTION

This invention relates in general to processing of data in computer systems, and more specifically to a system for detecting and interpreting transactions, events or changes in data in computer systems.

There is great commercial value to businesses in being able to detect significant events or transactions, from thousands or hundreds of thousands daily, and in interpreting their significance in real time or near real time. Knowledge that one particular customer order was smaller than usual, can lead to a much greater likelihood of the business missing its revenue targets, and leads to a whole chain of effects throughout the supply chain. Timely knowledge of the significant of this particular event buys the business time to replace the missing value from the smaller order with orders from other customers, and / or slow manufacturing processes to fit the new likely demand, and defer reordering supplies and components.

The traditional approach to managing business performance is to compile data from different computer systems into a computer database often called a data warehouse. This is a repository for information about the business, and typically stores large numbers of facts about the business. Business analysts then use analysis software to sift through the data in order to understand business performance.

Most data warehouses today are updated on a weekly basis, with some updated daily, and in general are not designed for analyzing real time data. Most data warehouse systems are also not designed to detect what has changed from previously, or to highlight to the business users significant transactions or events which could affect the business' ability to achieve its performance targets. As a result, most business performance analysis today is done manually – but this

process is time consuming and a skilled task leading to a time delay in producing the analysis. This time lag between the transaction or event happening and being able to take action on the analysis is measured in weeks or months at many companies.

In most businesses today there is considerable pressure on management to have greater visibility into the future performance of the business. The ad hoc nature of today's manual analysis process also leads to a lack of consistency in how the data should be interpreted. Rarely are corrective actions, identified by one department of the business, taken in isolation of other departments. Other departments may be responsible for pieces of the business process, and to may even have performed their own analysis, and reached different conclusions as to the appropriate actions that need to be taken. These types of disagreements between departments, or managers, typically cause the remedy for the problem to be delayed while agreement is reached. Today, these negotiations and discussions typically happen in a way completely disconnected from the data and the analysis, and may involve email and other forms of communication. Thus it is highly desirable to provide a system which links these two processes together.

There is great value in business today, due to shorter business cycles, greater competition, and pressure from the investor community to identify problems and implement corrective actions as rapidly as possible. Therefore there is great value in speeding the correct interpretation of the data, and in speeding the collective understanding of the problem across departments within a business.

SUMMARY OF THE INVENTION

The object of this invention is to increase the predictability of businesses, and collective understanding of the business performance, enabling management to

tune the appropriate business processes in response a rapidly changing business environment and business events.

Accordingly, this system provides for business men and women to use software to monitor the performance of the business, or there area of responsibility within the overall business, by defining metrics, goals (also known as business targets), rules, alerts, and dashboards to facilitate analysis of business performance by themselves and by others.

Metrics are reusable expressions of measures of business performance, for example Revenue or Days Sales Outstanding. Metrics are typically stored in a database to enable analysis of performance over time, and to facilitate the understanding of seasonality and cyclical patterns of performance of the business or a division thereof.

Goals are re-usable expressions of business targets by which the business judges performance, for example target Revenue for the third quarter, or the goal for the number of Days of Sales Outstanding that the business is striving to achieve. Goals are typically stored in a database to enable analysis of performance to compared with targets over time.

Rules are business conditions which describe particular conditions or patterns of conditions which hold particular meaning or significance for the business, a department of the business or for a particular business user. For example, when stock falls below minimum order quantity, then reorder is an explicit rule. An example of a simple pattern would be when stock falls below minimum order quantity, and if orders are forecast to achieve target, then reorder. In addition to these simple rules, the invention incorporates rules which use mathematical techniques including, but not limited to, statistical and artificial intelligence techniques to determine whether a particular event is significant, or part of the normal pattern of business.

Alerts are one type of action triggered by one or more rules or a pattern of business events or transactions. A simple example for illustration purposes might be that when stock falls below minimum order quantity, and if orders are forecast to achieve target, then alert the purchasing manager as suggest reordering. The alert can take many forms including but not limited to an on screen device in the dashboard presentation, an e-mail, text message, and voicemail.

Dashboards are graphical presentation user interfaces which use graphs, charts, maps, dials and other software devices to make it simple for business users to understand data and put it in context. An example dashboard display is given in Figure 1.

INTRODUCTION TO THE DRAWINGS

Figure 1. Shows an example dashboard user interface

Figure 2. An example user interface showing message threads linked to metrics and targets

Figure 3. An example user interface showing integration of message threads with their party email systems

Figure 4. An example user interface showing metric relationships

Figure 5. An example user interface showing optimization of metrics

Figure 6. An example user interface showing forecasting likelihood of hitting goal

Figure 7. An example user interface showing drag and drop dashboard builder

Figure 8. An example user interface showing configuration of graphical device

EXAMPLE APPLICATION OF THE INVENTION

An example, for the purposes of illustration, is given to show how the invention might be used: A major retailer struggles to identify which 'Key Items' are selling faster than expected, and to coordinate the appropriate actions by the inventory management, marketing, merchandising and retail management teams.

Implementing the invention automatically identifies that Red Men's 36"-42" Fleece Jackets are selling much faster than expected, leading to a likely stock out situation 4 weeks before additional stock will be delivered. The inventory manager sees the alert triggered by today's sales data, and changes the sizes and quantities on order. He records his action which automatically appears on the dashboards of the merchandising and marketing managers concerned. The merchandising manager sends an email (with link to the discussion thread) to all store managers instructing that the Red Fleece Jacket is removed from the window display pending delivery of additional stock. The marketing manager, at the last minute pulls the Red Jacket from the promotional catalogue, and increases the price.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

Although the present invention is discussed with respect to specific embodiments, these embodiments are merely illustrative, and not restrictive, of the invention. The scope of the invention is to be determined solely by the appended claims.

The present invention provides a computer system for analyzing, processing publishing data relevant to the performance of a business or organization. A

preferred embodiment of the present invention is provided in a suite of software programs. As will be seen, any suitable applications can be used to implement different facets of the system of the present invention. Certain aspects, such as specific user interfaces and tools, are not commercially available and have been custom developed by the applicant. It should be apparent that the concepts comprising the system of the present invention may be implemented in many different ways using various applications, databases, computer platforms, middleware, devices etc. Moreover the present invention can be practiced with one or more processes or functions of the invention located remotely from the other processes or functions. For example, a user can be in one geographic location operating a user interface according to the present invention while the data is stored in a database which is geographically distant. The user can communicate with the database vis-à-vis user interface, for example using a computer network.

Figure 1 shows an example of user interface which represents a dashboard type display. In Fig1, 101 shows a graphical dial which illustrates the performance of a particular metric. The different colors on the dial represent thresholds of performance, and may be linked to specific goals. Rectangle 102 represents "alerts" where business rules have been met or broken triggering an alert to a particular condition of the business. Rectangles 103 and 104 represent a different metric where each column 104 represents a point in time. Rectangle 103 represents a device where the user can reconfigure the display of data 105 by

changing the interval between points in time, for example from quarterly to monthly, or from daily to hourly;

changing the type of display 104;

using statistical techniques to spot patterns or trends by applying, for example for the purpose of illustration, smoothing algorithms or presenting the data as moving averages.

Rectangle 105 represents a "stock ticker" type display where transactions are scrolling across the panel. In this panel the words "AE Components" represents one particular transaction, and is also a hyperlink. This hyperlink enables the user to see the detail behind the individual transaction by selecting this hyperlink. This user interface displays only those transactions which are significant to the user. Transactions which are not significant are filtered out using a combination of rules, statistical and artificial intelligence techniques, but are still recorded in the database.

Rectangle 106 represents a time bar which controls the time period being viewed on the screen. The user is able to change the time period by adjusting sphere 107 or buttons 108.

Figure 2 shows an example of user interface which represents message threads linked to metrics and targets.

In figure 201 represents different metric where each column 201 represents a point in time. 202 shows how different metrics are grouped together into categories for ease of understanding and navigation by the user. Rectangle 203 shows an annotation linked to one particular metric and one point in time, in this particular case "Q401 bookings." Note that the annotation has been entered by one user "John Smith" and that the time and date is automatically recorded. This annotation also is recorded and displayed in the message threads rectangle 205 automatically by the system.

Rectangle 204 shows how different categories of metrics can be displayed in rectangle 204. The metrics shown are "customer" metrics, and the metric selected is "Bookings." Selecting a different metric in rectangle 204 would have the effect of changing the graphical display 201 to display the metric selected,

and would change the message threads 205 displayed below. Equally, any metric can be dragged from rectangle 204 onto the graphical display 201 and dropped to the same effect. Note that multiple metrics, or metrics and goals or benchmark data can be simultaneously selected, which would have the effect of changing the graphical display 201 to display all of the metrics selected, and would change the message threads 205 to display all of the message threads related to the metrics selected.

Rectangle 205 shows the display of messages, comments and annotations linked to the metric selected in 204 and the time period being viewed as defined in 206. In fig 2, 205 is showing discussion about the metric "Bookings" during the time period "Q300 to Q202."

Rectangle 207 represents a time bar which controls the time period being viewed on the screen.

Figure 2, reference 208 shows a tool tip which gives help to the user as to what to do. This tool tip is illustrative of different types of tips in interpreting the data, or in using the software.

Figure 3 shows an example of user interface which represents integration of message threads with their party email systems. In Fig. 3 the email system is Microsoft's Outlook program, though this is used purely as an illustration since the invention includes integration with all third party email, messaging and collaboration systems.

In Figure 3, 301 shows user interface for entering a new message into the system as displayed in Figure 2, 205. 303 shows the entry of a message heading. 304 shows the integration of the message heading and message text with the message heading and text in the email. 305 shows a hyperlink in the third part email software back to the dashboard interface where the data and other

messages can be found. An example usage, for the purpose of illustration, would be a business manager using the interface in Figure 2.

Deciding to add to the discussion of the data shown in Figure 2, 201, specifically, the manager selects "Write a comment" 206. At this point the user is taken to the user interface shown in Figure 3 and presented with a blank message template. The user enters a message heading 303 and the message text. Selecting the envelope icon 302 automatically pulls up a blank email message from the users 3 party email system, in this case Microsoft Outlook, and populates the email subject field with the message heading 304, and the message with the text entered by the user into the message template as described above. In addition the system automatically places a hyperlink into the email message to allow the recipient of the email to reference the data, and specifically the user interface shown in Figure 2.

Figure 4 an example of user interface which represents the strength of respective relationships between metrics. The strength of the relationships are expressed in this case as percentages, but can take other forms. 401 enables the user to shows the relationships graphically 402. The circle at the center of the graphic 402 represents the primary metric selected in the metrics panel 404, in this case "Attrition Rate." Relationships of other metrics 403 are calculated by the invention automatically, and the strongest relationships statistically are shown. Note that selecting a different metric 404 would lead to a different primary metric at the center of the graphic 402, and a different set of relationships with each of the other metrics 403.

Selection of "Influence Graph" 405 enables the user to switch from associated messages (as in Figure 2, 205) to a different view of the relationship strength, shown here as a descending bar graphic 407. The tool tip 408 provides both help on what the relationship graphics mean, but also how to interpret the data in this particular instance. Note that the example uses data from the example shown. Selecting a different metric 404, the invention would create a different

example relevant to the data shown. The time bar 409 controls the time period being examined in the user interface. Note that the strength of different relationships between metrics change over time, and moving the time bar to the left enables the user to compare relationships today with those in the past. Moving the time bar to the right enables the user to project likely relationships in the future.

Figure 5 shows an example of user interface which represents the optimization of metrics and setting optimized targets. This user interface is selected by the user from the interface shown in Figure 4 406. Figure 5 shows the primary metric, as in Figure 4 "Attrition Rate" and a slider bar for setting an optimal value. For the purposes of illustration, here is one example of how it might be used

A marketing manager has been set a goal of managing the attrition rate of a company's customers to 4.5%. From the metrics he selects "Attrition Rate" 503. Using the slider bar 501 he sets the Attrition optimal value to 4.5%. He can set minimum and maximum values as constraints 502, the values of 0% and 12% have already been suggested by the system based on 95 percentile values from historical data.
He sees that the strongest relationship with "Attrition Rate" is with "Renewal Rate" but because he knows that renewals are the inverse of attrition, he chooses to exclude this metric from the optimization process by checking the box 504. In addition, he knows that customer attrition is closely linked to staff satisfaction, so sets the minimum constraint on "Employee Sat Index" to 65% 505 and selects 506 an optimal value of 77% to maintain current performance 507. Selecting the "Optimize" function 508 will then automatically calculate optimized target values in order to achieve an attrition rate of 4.5%. He will then also be prompted as to whether he wishes to set the calculated values as goals, in which case the values would

be stored and can then be used to manage the business towards this ideal performance.

Note that use of the time bar 509 enables the user to use the optimization in the future. By setting the date, for example one quarter in advance, optimized goals for the next quarter can be calculated and stored in the system.

Note also that advanced mathematical arguments can also be used by accessing additional user interfaces 510. Such an argument, for the purposes of illustration might be similar to 'If metric "Customer Satisfaction Index" is forecast to fall below 70%, then remove the bottom constraint on metric Customer LTV."

Figure 6 shows an example of user interface which represents forecasting the likelihood of achieving a particular goal. This is of high business value since it enables business managers to analyze as frequently as they wish their progress towards hitting particular goals. The system automatically updates the forecast based on real time changing data, enabling the business manager to have an up to the minute and statistically valid projection of future business performance.

The type forecast is selected 601, and for illustration purposes only, Figure 6 shows a simple statistical forecast, although other techniques are also used by the invention. The period of the forecast in the example is referenced 602 and set by the user using the time bar 609. The graph 608 combines actual cumulative "Bookings" data for weeks one to twelve for the period, with forecast data 607 for weeks thirteen to eighteen. The forecast data 607 also gives a high and low value in addition to the forecast itself, based on a variety of mathematical techniques, and in this example based on plus or minus one standard deviation from the mean giving the user a confidence of 95% of achieving in this range 606 and 607. In addition confidence of achieving the

goal itself is given 603, as is a forecast, and range for the quarter, as well as any forecast shortfall or surplus 604.

Figure 7 shows an example of user interface which represents building of a dashboard by business users of the system using, in this example, drag and drop techniques. The example user interface shows a graphical 'dashboard builder' designed to make it very easy for a non-technical user of the system to build personal dashboards and publish dashboards to others. Typically today this is a task for a computer programmer due to the complexity of the task. In Figure 7 701 shows the step by step process in detail

choose a widget
choose your metrics
configure your widget
finish the page
publish

A 'widget' is a graphical device for displaying data, and the invention incorporates a library of widgets 702. This 'WidgetLibrary' consists of different types of widgets 703 including but not limited to Bar Charts, Pie Charts, Time Series Trend Lines, Maps, Scatter Plots, 3D Visualizations, Fit to Curve, Custom Widgets designed by users of the system and third parties, and dials 704. Selecting 'Dials' 704 shows four different types of dial widgets that can be used in building a dashboard. In this example selecting the third dial 705 and dragging it onto the screen left hand side results in an example user interface shown in Figure 8.

Figure 8 shows an example of user interface which represents a dashboard being built. The Dial Widget in Figure 7 705 has now been placed on the screen and sized by the user 801. Selecting and dragging a metric 803 and dropping it onto this widget 801links it to data, and the "Avg Order Value" 803. On

dropping this metric, panel 802 appears which enables the user to configure the widget including the frequency of data for the calculation of the metric used in the display 802, setting of thresholds 806, the use of 'slider bars' 805, and the selection of colors for each of the thresholds. Other widgets use different types of configuration not limited to those in the example given. In each case the system suggests colors, thresholds and names for the widgets to assist the user. 807 enables the user to save the widget so that it can be incorporated into other third party applications.

WHAT IS CLAIMED IS:

1. A method for understanding the impact on an organization's of new transactions, events or changes in data, the method using a computer system, the method comprising

   defining metrics which describe the performance of an organization, corporation, team or group, or business process;

   storing historical values for the metrics;

   defining goals for the current and future performance as measured by the metrics;

   projecting the likelihood of targets being achieved in the future;

   optimizing performance of one or more metrics;

   detecting the significance of a transaction, event or change in data;

   performing an action in response to the step of detecting the significance of a transaction, event or change in data;

   distributing collective understanding of the meaning and significance of a metric, transaction, event or change in data across an organization, corporation, team or group.

2. The method of claim 1, wherein the substep of defining metrics which describe the performance of an organization, corporation, team or group, or business process, includes

   definition of metrics by an expert operator of the computer system to establish standard metrics for an organization, corporation, team or group, or business process;

   definition of metrics by a business operator of the computer system to establish metrics for an organization, corporation, team or group, business process or personal use.

3. The method of claim 1, wherein the substep of defining targets for the current and future performance as measured by the metrics includes

definition of goals by an expert operator of the computer system to establish standard goals for an organization, corporation, team or group, or business process;

definition of goals by a business operator of the computer system to establish targets for an organization, corporation, team or group, business process or personal use.

4. The method of claim 1, wherein the substep of projecting the likelihood of goals being achieved in the future includes forecasts performance and ranges of potential likely performance.

5. The method of claim 1, wherein the substep of optimizing performance of one or more metrics includes

detecting relationships between different metrics;

use of the computer system to calculate optimal values for goals which have a relationship with the metric or metrics to be optimized;

development of scenarios to simulate performance under certain circumstances.

6. The method of claim 1, wherein the substep of detecting the significance of a transaction, event or change in data includes

likelihood of achieving a goal or not;

recalculation of forecast performance;

recalculation of optimal goal values;

notifying an operator of the computer system that the detection has taken place;

interpretation of why the transaction, event or change in data is significant;

7. The method of claim 1, wherein the substep of performing an action in response to the step of detecting the significance of a transaction, event or change in data includes

notifying a user or groups of users of the computer system;

storing status information to reflect the priority of action;

storing information on the action taken;

storing status information after the action has been taken;

correlating previous actions taken with performance and achievement of goals.

8. The method of claim 1, wherein the substep of distributing collective understanding of the meaning and significance of a metric, transaction, event or change in data across an organization, corporation, team or group includes

storing annotations, comments and threads of discussion;

linking of annotations, comments and threads of discussion to metrics, targets and forecasts;

publishing metrics, goals and forecast performance across an organization, corporation, team or group;

publishing annotations, comments and threads of discussion across an organization, corporation, team or group.

9. A method for business men or women, without day to day support from expert computer operators

create user interfaces for displaying data, including but not limited to metrics, goals, forecast performance, alerts, annotations, comments and threads of discussion using graphical and non-graphical displays;

publish user interfaces across an organization, corporation, team or group in different formats, including but not limited to web based formats, documents and third party electronic document formats;

schedule automatic publishing and distribution based on specified time intervals or defined business rules and alerts.

ABSTRACT OF THE INVENTION

The system enables business people to understand the impact of business transactions, changes and events in real-time using advanced rules and analytics to filter, categorize and interpret the significance of streams of real time information. Most business performance analysis today is done manually and this process is a time consuming and skilled task leading to a time delay in producing the analysis. This time lag between the transaction or event happening and being able to take action on the analysis is measured in weeks or months at many companies.

By blending real-time information with historical data and performance goals, this system enables business users to assess business events and collaborate within teams to drive optimal business performance.

Use forecasting techniques enable business managers to predict the likelihood of achieving a particular goal without relying on manual analysis by a skilled analyst. The system automatically updates the forecast based on real time changing data, enabling the business manager to have an up to the minute and statistically valid projection of future business performance.

FIGURES 1/4

FIGURE 1. EXAMPLE DASHBOARD USER INTERFACE

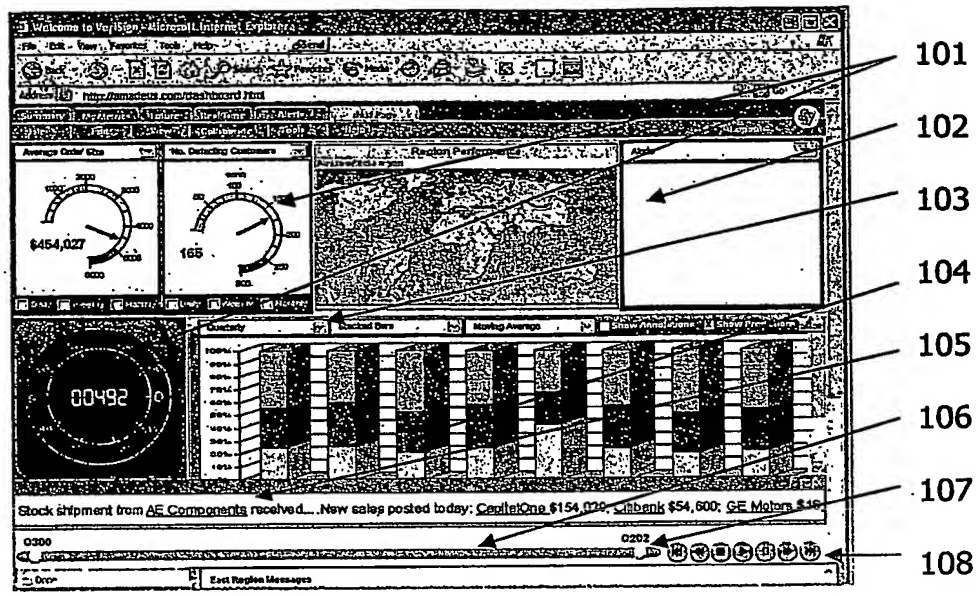


FIGURE 2. AN EXAMPLE USER INTERFACE SHOWING MESSAGE THREADS LINKED TO METRICS AND TARGETS

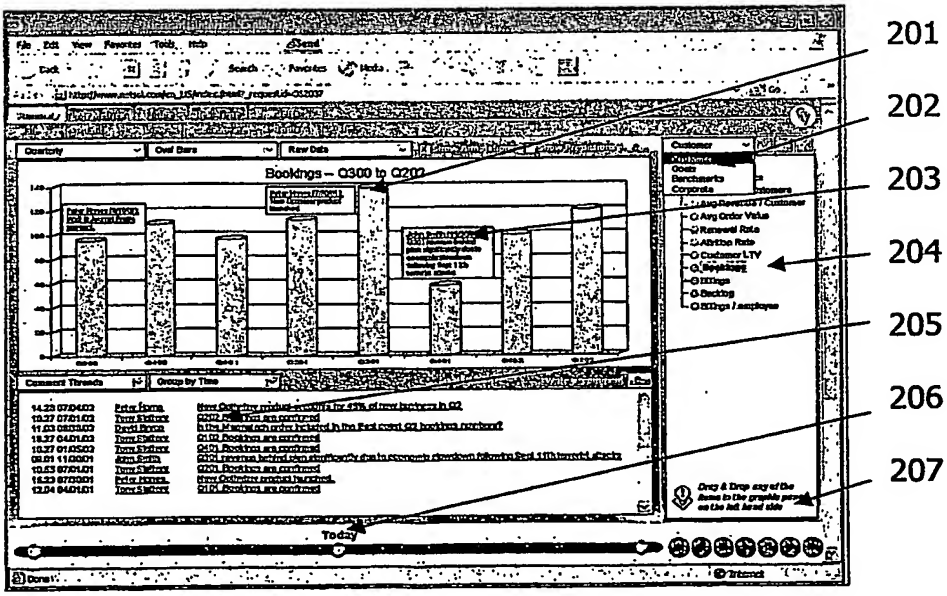


FIGURE 3. USER INTERFACE SHOWING INTEGRATION OF MESSAGE THREADS WITH THEIR PARTY EMAIL SYSTEMS

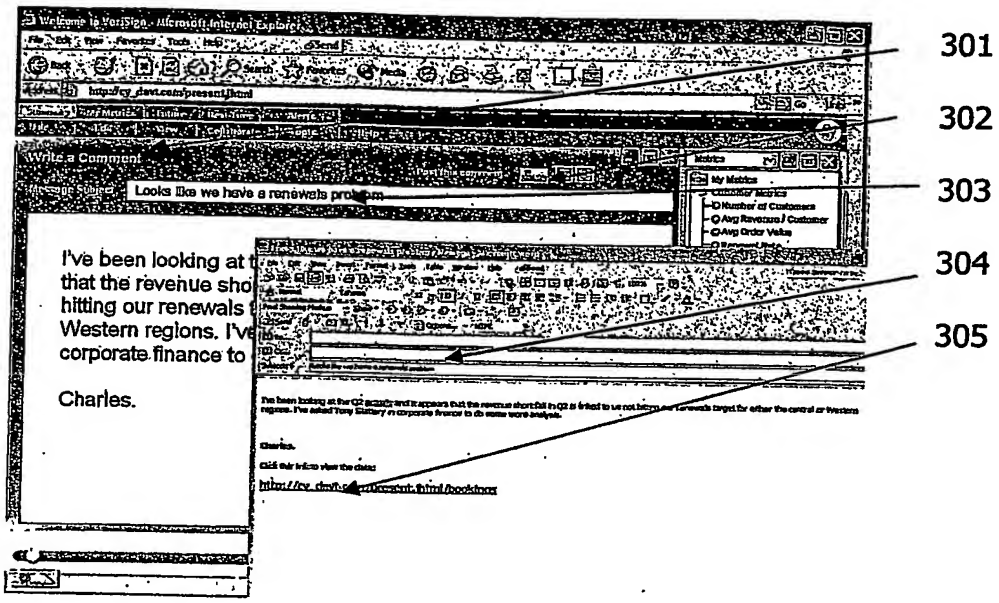
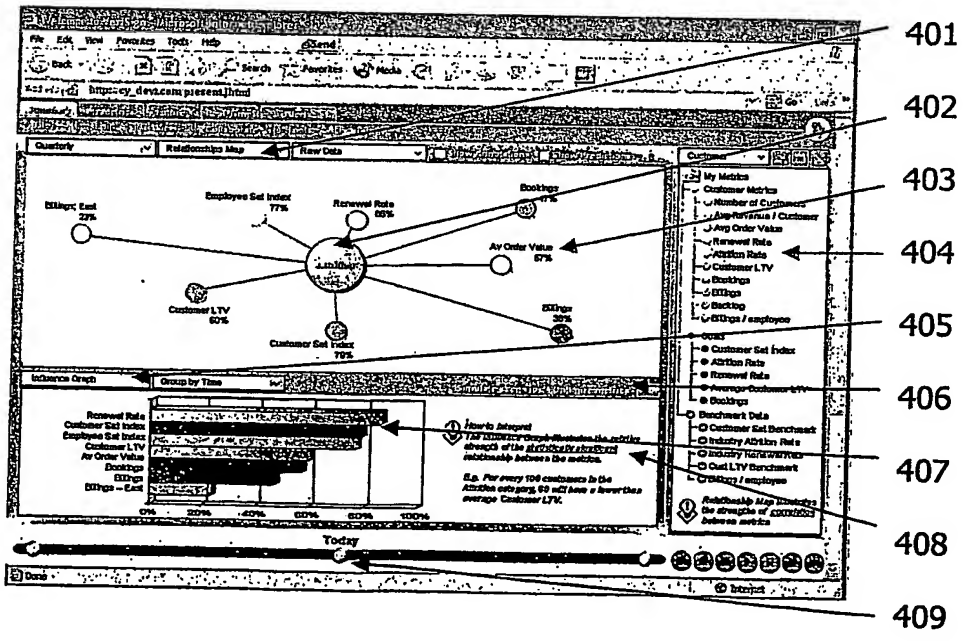


FIGURE 4. USER INTERFACE SHOWING METRIC RELATIONSHIPS



FIGURES 3/4

FIGURE 5. USER INTERFACE SHOWING OPTIMIZATION OF METRICS

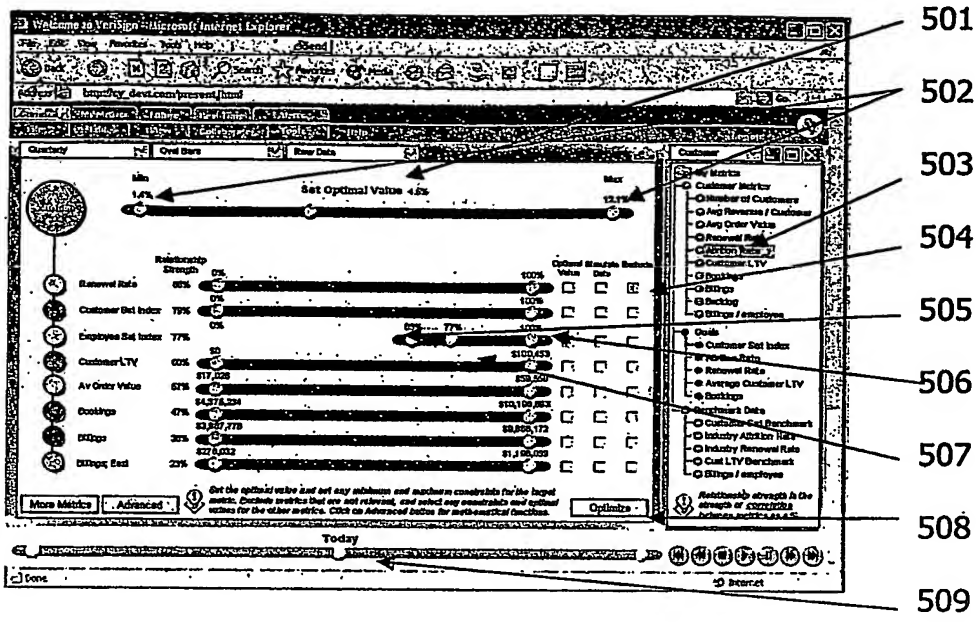
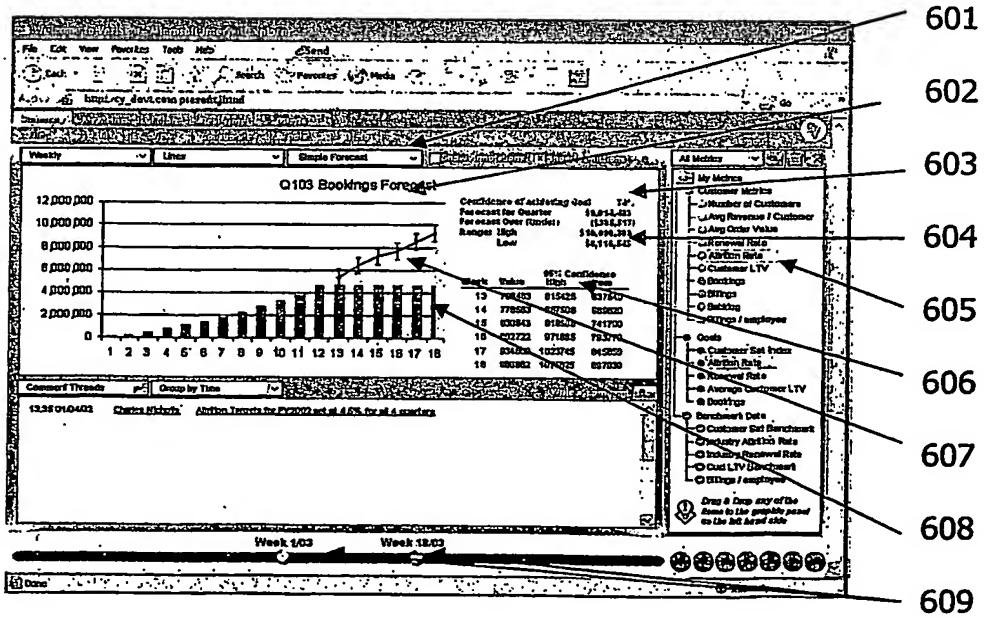


FIGURE 6. USER INTERFACE SHOWING FORECASTING LIKLIHOOD OF HITTING GOAL



FIGURES 4/4

FIGURE 7. USER INTERFACE SHOWING DRAG AND DROP DASHBOARD BUILDER

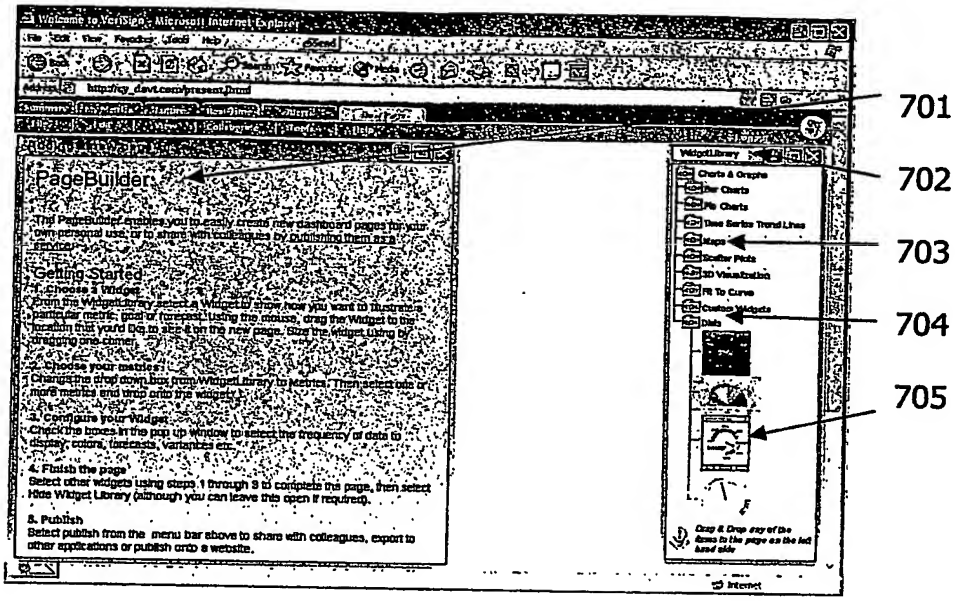


Figure 8. USER INTERFACE SHOWING CONFIGURATION OF GRAPHICAL DEVICE